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## DIRECTORATE OF INTELLIGENCE

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China: Establishing a Patent System [redacted]

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## Summary

China's new patent law -- delayed for several years because of internal disputes over the need for a patent system -- may be promulgated in early 1984. The law should assist China in obtaining advanced foreign technology by reassuring foreign firms of China's intent to respect property rights. Protecting foreign property rights in China will continue to be a problem, however, for technologies already patented abroad and for certain technologies such as chemicals and computer software, which are unlikely to be covered by the new law. The inclusion of certain features of Japan's patent system in the Chinese law indicates other potential problems for US firms, which have had considerable difficulty obtaining patents in Japan. The impact of the law on encouraging foreign firms to provide advanced technology will be further limited by difficulties in implementing the law and in detecting patent infringements.

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Background

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Signs that China will promulgate a new patent system have been more frequent since December 1982, when Premier Zhao Ziyang, stressed the need for a new patent law in his report to the Fifth Session of the National People's Congress (NPC). State Councillor Bo Yibo subsequently stated in January 1983 that the State Council had approved the establishment of a new patent system. Although Vice Premier Yao Yilin predicted last spring that the law would be announced in June 1983, some recent

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visitors to China have been told unofficially that the law would be announced in December 1983 or January 1984. In early December 1983, the patent law was under consideration by the Sixth Standing Committee of the National People's Congress, which is frequently one of the final steps before promulgation of a new law. [redacted]

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A draft of the patent law was completed by 1981. Promulgation has been delayed by internal debate and by the time needed to organize a workable patent system. [redacted]

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[redacted] still more internal preparation may be needed before a law is announced. Beijing has demonstrated its intention to establish eventually a patent law by taking a number of steps to prepare a patent system, such as establishing the State Patent Bureau and training specialized personnel. [redacted]

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#### Need for a patent system

Many foreign businesses have been reluctant to export technology to the Chinese because of the lack of patent protection. Ample evidence that the Chinese were duplicating foreign technology without authorization reinforced their concerns. According to the PRC-controlled press in Hong Kong, Chinese guidelines for technology imports in 1979 specified that whatever can be copied after initial import should no longer be purchased, and that imports of patents and equipment must be reported to concerned departments so that information can be shared and monopoly avoided. [redacted]

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In the absence of a Chinese patent system, foreign firms dealing with China have relied on contractual or bilateral agreements for protection of intellectual property rights. In the early 1970s, the Chinese resisted contractual restrictions against duplication of technology on the grounds that know-how "belongs to the people." In recent years, however, Chinese officials have sought to reassure foreigners that patent protection stipulated in import contracts would be strictly honored. Several foreign firms have been successful in using arbitration or patent protection clauses to force Chinese authorities to protect property rights. [redacted]

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US firms were afforded additional protection in 1979 with the signing of the US-China trade agreement. Both parties agreed to seek to ensure to nationals of the other party protection of patents and trademarks equivalent to protection provided by the other party. Nonetheless, the lack of a Chinese patent law and conflicting jurisdiction of the several Chinese agencies involved in technology import issues caused considerable uncertainty over the degree of protection foreign firms could expect. [redacted]

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The uncertainty over patent protection has hampered Beijing's efforts to obtain advanced foreign technologies. Some foreign firms refused to sell certain plants to China or agreed only to sell particular products rather than license their manufacture in China. Other foreign firms resigned themselves to illegal duplication of products in the PRC and concentrated their efforts instead on preventing the Chinese from exporting such products to third countries. [redacted]

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Increasing difficulties in acquiring foreign technology and pressures from its major trading partners caused Beijing to reexamine its commercial practices and laws. Work on a patent system began in the late 1970s. The State Patent Bureau had submitted a draft patent law to the State Council by mid-1981, but, [redacted] strong internal opposition [redacted] prevented the Council from approving the draft. [redacted]

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### The Internal debate

[redacted] members of the State Economic Commission (SEC), the Import-Export Commission, and the Ministry of Machine Industry (formerly the First Ministry of Machine Building), led the opposition to the patent proposal. They claimed that since China was a technologically backward country, foreign patent holders would reap the benefits while China assumed the financial burden of purchasing foreign patent rights. The Ministry of Machine Industry in particular believed it could save money by stealing foreign technology and duplicating products and plants on its own. Furthermore, since Chinese enterprises are owned by the people, the opposition charged that it would be wrong for one enterprise to obtain exclusive rights for its inventions and prevent others from sharing the benefits. The SEC and the Import-Export Commission reportedly also were concerned with bureaucratic concerns -- the potential loss of central control if individual Chinese enterprises were permitted to purchase foreign patent rights. [redacted]

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Proponents of the draft law responded that lack of patent protection was hampering scientific development by preventing China from purchasing vital plants and equipment. In addition to the difficulties involved in unauthorised acquisition of foreign technology, the resulting products tended to be of poor quality because Chinese technicians often did not have a good understanding of the technologies involved. The State Patent Bureau (SPB) argued that in many cases Ministry of Machine Industry plants spent more money in duplicating equipment, with a resultant low quality product, than if the same equipment had been imported or produced according to specifications acquired by paying the patent fees. The SPB also contended that foreign firms charged China higher prices to compensate for the lack of

patent protection, and were frequently willing to sell China only second or third rate technology rather than state of the art technology. [redacted]

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The proponents of a patent law were unable to override the opposition in 1981, but have gained increasing support since then. Officials speaking in favor of a patent law recently include Zhang Jingfu, head of the SEC which originally opposed the law. Chinese officials dealing with foreign visitors during the past two years, asserting the adoption of the law was inevitable, have counselled patience on the patent issue while Beijing "collects opinions" from the provinces. [redacted]

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[redacted] articles in Chinese periodicals indicate proponents have used the period since 1981 to persuade doubters, with both ideological and pragmatic arguments. Recent articles have blamed leftist errors for the failure to implement Chinese regulations on patent rights in the 1950s, and have painstakingly established the appropriateness of socialist patent laws by quoting Marx, Engels and Lenin. More practical discussions listed the benefits to China of a patent system, including:

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- A smoother inflow of advanced foreign technology, with the details included in patent applications providing timely knowledge of technical developments.
- Protection of Chinese patents from foreign infringement.
- Greater incentives for Chinese inventors and innovators.
- Allowing China to avoid purchasing duplicate foreign patent rights or rights on products for which China already possesses the technology by keeping track of inventions and technical imports. [redacted]

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#### Preparations for a patent system

Beijing has drawn on extensive international consultations in preparing for its patent system. The Chinese have studied the patent laws of 29 countries and sent trainees to the United States, the Netherlands, West Germany, France, Canada, and Japan. [redacted] the Chinese have been particularly influenced by the German and Japanese patent laws. The World Intellectual Property Organization, which China joined in 1980, has run training courses in China and sponsored Chinese trainees abroad. Topics studied by the trainees include patent rights management, personnel training, the equipment used in operating a patent system, and patent examination techniques. [redacted]

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Effectiveness of the system will depend to a large extent on the people who run it, and training the specialized personnel needed has been a major preoccupation. The SPB has run courses on patent specialties, including a six-month management and indexing correspondence course in Hefei which reportedly attracted 3,300 college graduates. A total of 20 Chinese colleges and universities were expected to give courses in industrial property law by fall of 1983. The SPB requires patent agents to have a college education in science and engineering, mastery of at least one foreign language, and three years work experience. Knowledge of Chinese and foreign patent laws, civil laws, procedures law and international patent business also are required. Training in the computers needed to run a modern patent system and purchasing of the computers themselves is also under way. [redacted]

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Institutional mechanisms for implementing the system are under development as well. The State Patent Bureau is preparing for the establishment of domestic patent agencies to assist in protecting patent rights. The State Council has authorized the China Council for the Promotion of International Trade (CCPIT) to set up patent agencies for handling foreign business. [redacted]

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[redacted] CCPIT may set up a joint venture in Hong Kong with a Hong Kong company to assist in examination of patent applications. The Hong Kong venture might involve the participation of the Ministries of Railways, Communications, Chemical, Petroleum and Metallurgical Industries, and the Ministry of Machine Industry. [redacted]

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#### The draft law

The text of the draft Chinese law is not yet available. However, a number of the provisions likely to be included in the Chinese law have been disclosed in meetings of Chinese officials with foreign visitors and in articles in the fledgling Chinese patent journal. [redacted]

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Types of patents. China will probably establish three kinds of patents: patents of invention (similar to utility patents in the United States) to run for 15 years; utility model patents; and industrial design patents. Utility model patents, also known as petty patents, appear to correspond to a type of patent issued in Japan and Germany covering articles for everyday use which employ a feature developed by an inventive step. Petty patents, which the United States does not grant, and industrial design patents would run for five years. [redacted]

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Criteria for patent eligibility. The criteria for granting patents will be novelty, "inventive step," and industrial applicability or use. Novelty will be determined by reference to

patent publications worldwide, while the test for use would be confined to use within China. Foreigners will have one year from the date of application for a patent in the home country in which to decide to file for patent protection within China. [redacted]

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Ownership. The first to file for patent protection, rather than the first to invent, will own patent rights. (The United States is one of only a handful of countries that follow the first to invent rule.) Chinese inventors will be rewarded for inventions, but patent rights will be assigned to the employing unit. The employing unit cannot prevent other institutions from exploiting the patent, but will be entitled to compensation. Patent rights for inventions by the few Chinese who do not work for the state will be held by the individual. Foreigners will be granted exclusive patents. [redacted]

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Exclusions. Likely to be excluded from patent protection are: pharmaceutical and chemical products; scientific discovery, mathematical methods and computer programs; foods; plant and animal species; inventions relating to nuclear energy; and inventions against Chinese law and socialist morality. When a product falls into one of these categories, the process for producing it may still be patentable. Both US and West German firms were concerned with patent protection for chemicals, while the Japanese had pressured Beijing to include protection for computer software. [redacted]

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Enforcement. Although mediation will be encouraged, patent infringement claims may be taken to court for adjudication--probably the economic courts of the intermediate people's court, which were created to hear foreign trade disputes. The Chinese have indicated the law may stipulate that in cases where an invention is determined to be very important to the national defense, the economy, or public health, the patent owner may not be able to stop the use of the patent, but will be entitled to compensation. [redacted]

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Foreigners residing abroad must use CCPIT's patent agency to represent their interests (similar to the Soviet system), but indications are that foreigners living in China may hire patent agents and proceed without CCPIT participation. [redacted]

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At one point in their deliberations, the Chinese were planning to institute criminal penalties--two years imprisonment--for patent infringement, rather than civil penalties as is the case in the United States and most other countries. Whether the current draft of the law retains this feature is not known. [redacted]

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Process. The Chinese will adopt a deferred examination system, such as exists in Japan, in which applications will be published 18 months after filing. Applicants have another two

year period in which to request examination. An opposition procedure apparently will allow third parties to oppose the grant of a patent within six months of the request for examination.

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Compulsory licensing. Patent holders must work the patent, that is, use the process or produce the article covered by the patent. If they fail to do so adequately within three years, third parties may apply for compulsory licensing, with royalties to be determined between patentee and licensee.

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China must promulgate a patent law before it will be allowed to join the Paris Convention for the Protection of Industrial Property, which the Chinese have indicated they want to do. One provision of the Paris Convention allows patent applicants up to 12 months after applying for a patent in the home country to decide in which of the member countries additional patent protection should be sought. Applications to member countries within that time period will be dated from the date of application in the home country.

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### Prospects

Establishment of a Chinese patent law will remove a major obstacle to trade with China by reassuring US and foreign firms of Beijing's intention to protect patent rights in the future. Nevertheless, several problem areas remain. Limitations in the law and uncertainties over implementation will limit the law's impact in the near term.

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Exclusions. Lack of patent protection for chemical and pharmaceutical compounds - as seems likely - will leave a significant portion of property rights which are recognized in the United States unprotected in China. This may raise questions as to whether the new law satisfies the terms of the US-China trade agreement, although if the Chinese law complies with the Paris Convention, this concern might be eliminated. US law requires countries with which the United States signs bilateral trade agreements to be members of the Paris Convention, or to guarantee US nationals rights not less than the rights specified in the Paris Convention.

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Both US industry and government officials urged Beijing to include patent protection for chemicals and pharmaceuticals. Manufacturers claim they need patent protection for both compounds and processes in order to recoup their development costs and adequately protect future markets. (Development of a chemical compound can take years and cost millions of dollars, yet many chemicals can be easily reverse engineered.) Manufacturers also fear their competitors will find other ways to produce the same compound. If the compound is not patented, others wanting to market a product could do so with relatively little trouble. China argues, as have other developing

countries, that granting patent protection for compounds would inhibit development of its own chemical industry. In addition, a patent system covering compounds requires large numbers of legal and technical personnel to maintain. [redacted]

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Manufacturers of chemicals, pharmaceuticals, and other excluded products will continue to seek protection through contractual agreements. Similarly, since patent laws only concern patents on new inventions, firms selling technologies which have already been patented in the United States or elsewhere must seek protection through contracts. This may be of more concern to sellers of medium-technology than to those selling very advanced products which are difficult to put into serial production. The extent to which private contractual agreements will be allowed to provide or upgrade protection after the law is promulgated is unclear. Zhu Rongji, a vice minister of the SEC, indicated in October that, after the law is promulgated, sellers of unpatented technology and know-how will be able to obtain some protection through contracts. [redacted]

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Japanese Influence. The extensive Chinese-Japanese collaboration on patents may also indicate some potential problems for US firms seeking patents in China. US businesses, particularly producers of semiconductors and telecommunications equipment, have experienced considerable difficulties in obtaining patents in Japan. The opposition procedure, which the Chinese appear to have adopted, has been a particular problem in Japan, where competitors use the opposition period to stall the patent examination process. [redacted]

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The protection afforded by a Chinese patent law will not be known until the Chinese demonstrate their intentions and ability to implement the law. Despite the preparations, it will be some time before a system becomes operational. The trained personnel needed for the patent system will probably be a continuing limitation; the patent system is one of many organizations competing for a limited number of science and engineering graduates. Beijing's recognition of the difficulties involved in implementing a patent system may be contributing to the delay in announcing the law. [redacted]

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Whether China will cease unauthorized duplication remains an open question. In their push to modernize through science and technology, the Chinese are establishing mechanisms to assist the transfer of technology from military to civilian uses, and between research and production units. Foreign-patented technology may prove to be an irresistible temptation to some Chinese managers. China remains a restricted society and foreigners may be unaware of or unable to document illegal uses of patent technologies. [redacted]

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Implications for China

Establishment of a patent system will assist China in acquiring the foreign technology needed for modernization. Many foreign firms will be less reluctant to sell advanced technologies to China. The Chinese, with a system for obtaining extensive patent information, may become more knowledgeable buyers. Patent applications are available for public scrutiny and provide a wealth of technical information. China has already been aggressively acquiring foreign patent data. The patent data service center in Beijing, for example, claims to have collected over 20 million patent documents from the United States, Japan, Britain, France, West Germany and other countries.

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Within China the new system could increase both innovation and technology assimilation. Recognition of invention, and the provision of compensation, provides incentives to both S&T personnel and their employing units. Although the need to pay royalties for technology will slow the spread of a technology in some cases, the system may reduce the competition between producing units that contributes to the current reluctance to share technologies. If a patent system provides mechanisms for both transfer and compensation, technology sharing should be broadened. Centralized registration of innovations may also allow authorities to better utilize science and technology resources by calling attention to related or duplicative research efforts.

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Patents on Chinese technologies will be outnumbered by foreign applications for Chinese patent protection; nonetheless, it is clear Beijing recognizes and will fight for potential economic benefits from patents. In negotiating patent agreements for US-China S&T protocols, the Chinese have been particularly intransigent on the issue of patent rights in third countries for innovations developed under the protocol. US negotiators argue that usually such rights are assigned to the party contributing the technology on which the innovation is based. The Chinese, claiming they are protecting their economic rights, have demanded that there be more recognition of the creative contribution of the inventor in assigning rights. They further insist that international practice, rather than assigning these rights to one party or the other as the United States desires, is to assign joint ownership of intellectual property rights from joint research efforts. One Chinese official said informally that they agreed to the US position in the high energy physics protocol of 1979 only because they were inexperienced in such matters.

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